

AMENDMENT #2 TO THE SUPERFUND STATE CONTRACT
BETWEEN THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AND THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
FOR REMEDIAL ACTION AT
THE JACOBSTOWN NEIGHBORHOOD SOIL CONTAMINATION SITE
OPERABLE UNIT 2
EVANSVILLE, INDIANA

This is the Second Amendment to the Superfund State Contract (SSC) for the Jacobstown Neighborhood Soil Contamination (JNSC) Superfund Site, Operable Unit 2 (OU2). The SSC for Project 1 of OU2 was fully executed by and between the State of Indiana (State) and the U. S. Environmental Protection Agency (EPA) on September 20, 2011 for remediation of at least 470 residential or high access properties in Evansville, Indiana. The Parties amended the SSC on September 26, 2012 to provide a framework for the EPA and the State to perform the remedial action for Project 2 of OU2 which included remediation of at least 450 additional residential or high access properties at the JNSC Superfund Site.

This amendment includes a framework for EPA and the State to perform the remedial action for the next project at the JNSC Superfund Site. The next project, hereinafter referred to as Project 3, includes the remediation of additional residential or high access properties at the site. The number of additional properties in the project is projected to be between 700 and 1,000. Project 3 is necessary to protect human health from exposure to lead and arsenic contaminated soils.

The EPA and State agree to again revise the SSC and its Appendices as follows:

1. GENERAL AUTHORITY

This Superfund State Contract is entered into pursuant to §§104(a)(1), (c)(2), and (c)(3) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), 42 U.S.C. §§ 9601 *et seq.*, as amended; the National Oil and Hazardous Substances Pollution Contingency Plan, 55 F.R. 8666 *et seq.* (40 CFR, Part 300, March 8, 1990, hereinafter referred to as the "NCP"); other applicable Federal regulations including 40 CFR Part 35, Subpart O, and 2 CFR Parts 200 and 1500, and Indiana Code §§13-13-5-1 and 13-13-5-2, 13-14-2-3 and 13-14-2-5.

2. PURPOSE OF THIS SUPERFUND STATE CONTRACT

This Superfund State Contract ("Contract" or "SSC") is an agreement between EPA and the Indiana Department of Environmental Management ("IDEM" or State) on behalf of the State of Indiana concerning remedial action at Operable Unit 2 ("OU2") Project 1, Project 2 and Project 3 at the Jacobstown Neighborhood Soil Contamination ("JNSC" or "Jacobstown") National Priorities List ("NPL") Site ("Site"), CERCLIS ID INN000508142. The remedial action for OU2-Projects 1, 2 and 3, detailed in the Record of Decision prepared by EPA Region 5, dated September 22, 2009, consists of excavating

soil material from areas within residential and other properties, as defined below, that exhibit arsenic and lead levels exceeding remediation goals, disposal of excavated material in a landfill, filling excavated areas with clean soil and restoring the properties. In addition to residential properties, the other properties that will be cleaned up as part of the JNSC Site will be those to which the public, and especially children, have significant access. These other properties are referred to as "high access" properties and include areas such as playgrounds, schools, and day care facilities. Commercial and industrial properties are not included as part of the JNSC Site. Pursuant to IC §13-13-5-1 and IC §13-13-5-2, IDEM is the agency designated with the responsibility concerning CERCLA for the State of Indiana.

The entire JNSC OU2 Site encompasses approximately 10,000 properties, of which 4,000 or more may require remediation. For a number of reasons, including to more easily manage the Site and to allow the State and EPA to obligate funds in an incremental manner, the OU2 work will be divided into a number of "Projects." For each Project, the number of properties to be cleaned up and the cost for the Project will be estimated. Each Project will likely involve cleanup of between 400 and 1,000 properties. For each new Project in OU2, an Amendment to the SSC will need to be developed and signed. This approach will provide the State and EPA with more flexibility for managing their annual budgets and will allow the Parties to commit to the work and expenditures as more certainty about the scope, scheduling, and funding of the work for each Project is obtained.

This Contract currently documents the responsibilities of EPA as lead agency and IDEM as support agency for the remedial action for OU2-Projects 1, 2 and 3 at the JNSC NPL Site.

The JNSC OU2-Project 1 originally was to consist of the cleanup of approximately 470 properties sampled by EPA in the fall 2010. Cleanups at 469 of the 470 properties were completed during 2012. However, the objective was to remediate as many properties as possible given the funding limit, which for Project 1 was \$12,000,000. Because funds remained after the original phase of Project 1 cleanup was completed in 2012, EPA and IDEM agreed to remediate more properties using the available funding.

In December 2015, EPA and IDEM agreed to remediate up to 280 additional residential properties with the Project 1 funds, which had been sampled in late 2014. The remaining Project 1 funds allowed 209 of the 280 properties to be remediated, which brings the total number of Project 1 properties remediated to approximately 678 as of January 2017. As of the signature date of this amendment to the SSC, EPA estimates that OU2-Project 1 will be nearly 100 percent complete.

The JNSC OU2-Project 2 originally was to consist of the cleanup of approximately 450 properties with a funding limit of \$15,000,000. Project 2 was covered under First Amendment of the SSC signed in 2013. The 450 properties included 338 properties requiring cleanup that had been sampled by EPA in early 2012, and another 120 properties that required cleanup that were sampled in early 2013. Cleanups at this first

set of 450 properties were completed in 2013-2014. The actual cost of remediation per property was less than estimated and, therefore, in 2014-2015, with the OU2-Project 2 funding, EPA was able to oversee the remediation of an additional 450 properties, which had been sampled in summer 2013. As of the signature date of this amendment to the SSC, the remediation under OU2-Project 2 is complete. A total of 900 properties was remediated using Project 2 funding.

The JNSC OU2-Project 3 consists of approximately 700 properties. This number includes 373 properties requiring remediation based on sampling conducted in August and September 2016. The 71 properties slated to be remediated under OU2-Project 1 that were not remediated prior to reaching the Project 1 funding cap will be remediated as part of OU2-Project 3. Note that it is the uncertainty of the number of owners who will grant access to EPA for sampling, along with the uncertainty of how many yards tested will require remediation that prevents EPA and the State from specifying exactly how many properties will be included in each Project. Although 700 is the estimated number of homes that will be cleaned up as part of OU2-Project 3, the objective will be to remediate as many properties as possible given the funding limit, which for Project 3 is \$18,000,000. Depending on the actual cost of the cleanup work, the number of homes remediated during Project 3 may be greater or less than 700.

As part of the remedial design work, which is not part of this Contract, sampling of OU2 properties will be performed in multiple sampling events. Although each remedial design document will include multiple properties, separate remedial design drawings will be generated for each property that exceeds the cleanup goals and requires remedial action. Each remedial design document is subject to review and approval by the EPA and the State (see Section 11 below). All remedial action work will be based on approved remedial design documents.

The Statement of Work (SOW) describing the OU2-Projects 1, 2 and 3 work is attached as Amended Appendix A and incorporated herein by reference. The SOW is based on the Record of Decision (September 2009) and Final Remedial Design documents for Project 1 (March 2011, June 2015 and August 2015), for Project 2 (December 2012, September 2013, and April 2014) and for Project 3 (March 2017) as approved by EPA and the State. The Contract contains the necessary CERCLA assurances for the remedial actions at JNSC OU2-Projects 1, 2, and 3 of the Site pursuant to §§104(c)(3), 104(c)(9), and 104(j) of CERCLA as amended. The Contract also documents State involvement in the remedial action cleanup process pursuant to §121(f) of CERCLA, as amended and 300.515(g) of the NCP.

3. DURATION OF THIS CONTRACT

This Contract is in effect upon execution by EPA and the State and shall remain in effect, until the remedial action and final reconciliation for JNSC OU2-Projects 1, 2 and 3 are complete. The Parties anticipated that the remedial action for Project 1, including the Remedial Action Project 1 Completion Report and the submission of the itemized invoice of remedial construction costs, would be completed by September 2013. Because

additional properties were able to be remediated using Project 1 funds, the Parties now anticipate the Remedial Action Project 1 Completion Report and the submission of the itemized invoice of remedial construction costs will be completed in 2017.

The Parties anticipated that the remedial action for Project 2, including the Remedial Action Project 2 Completion Report and the submission of the itemized invoice of remedial action costs, would be completed within two years from the date of execution of the First Contract Amendment. As of the signature date of the Second Contract Amendment, the remedial action for Project 2 is complete and IDEM has received the Remedial Action Project 2 Completion Report. IDEM should be receiving the itemized invoice of the Project 2 remedial action costs in 2018/2019.

The Parties anticipate that the remedial action for Project 3, including the Remedial Action Project Completion Report and the submission of the itemized invoice of the remedial action costs, will be complete within two and a half years from the execution of this Contract Amendment. The Parties may amend this Contract to allow for completion of subsequent Projects including reconciliation. The Parties anticipate that all current and future OU2 Projects will be technically complete by December 2021.

4. DESIGNATION OF PRIMARY CONTACTS

A. EPA has designated:

Mary Tierney
U.S. EPA Region V
77 W. Jackson SR-6J
Chicago, IL 60604
(312) 886-4785 – office
(312) 692-2483 - fax
tierney.mary@epa.gov

Jena Sleboda Braun
U.S. EPA Region V
77 W. Jackson SR-6J
Chicago, IL 60604
(312) 886-0272 - office
(312) 385-5341 - fax
sleboda.jena@epa.gov

to serve as Remedial Project Managers (RPM) for this Contract. The designated RPMs may be changed by letter to the State Project Manager without amending this Contract. An additional co-RPM may be assigned at a later date by notifying the State Project Manager in writing without amending this Contract.

B. The IDEM has designated:

Annie Hause
Indiana Department of Environmental Management
Office of Land Quality - Federal Programs Section
MC 66-30, IGCN 1101
100 N. Senate Avenue
Indianapolis, IN 46204-2251
(317) 234-0354 - office
(317) 234-0428 - fax

ahause1@idem.in.gov

to serve as State Project Manager (SPM) for this Contract. The designated SPM can be changed by letter to Remedial Project Manager without amending this Contract.

C. The RPM(s) and the SPM may make changes that do not substantially alter the scope or timeline of the remedial action only with the written approval of the other. The RPM(s) and SPM may not make changes that increase the cost of the remedial action without a written amendment to this Contract.

D. Any disagreements between the RPM(s) and SPM shall be resolved through their chains of command and/or signatories to this Contract, as specified under the Issue Resolution section, below.

5. NEGATION OF AGENCY RELATIONSHIP

Nothing contained in this Contract shall be construed to create, either expressly or by implication, the relationship of agency between EPA and IDEM. EPA (including its employees, agents, contractors and assigns) is not authorized to represent or act on behalf of the State in any matter relating to the subject matter of this Contract, and the State (including its employees, agents, or contractors) is not authorized to represent or act on behalf of EPA in any matter relating to this Contract.

6. SITE DESCRIPTION

A description of the JNSC Site including location, background events, physical characteristics, and the nature of contaminant releases are set forth in Amended Appendix B which is incorporated herein by reference.

The remedial actions contemplated in the Record of Decision (ROD) for OU2 at the JNSC Site, set forth in Appendix A and incorporated herein by reference, include the excavation of residential soil contaminated with lead and/or arsenic; the backfilling of excavated areas with clean soil; restoration of properties; and disposal of all contaminated or non-recyclable material at licensed, off-site facilities in accordance with applicable or relevant and appropriate federal and/or state law.

7. SITE ACCESS

A. ACCESS TO PERFORM WORK

EPA will secure access under its own authority to all required residences/properties and will also secure access to right-of-ways and easements of the City of Evansville, Indiana, necessary to complete the remedial actions undertaken pursuant to this Contract. EPA will grant said access to IDEM. EPA may request assistance from IDEM as necessary.

B. ACCESS TO REVIEW WORK

Representatives of IDEM and EPA shall have access to the Site to review work in progress, agree to comply with the health and safety plan developed for the Site and shall coordinate visits to the Site in advance.

C. LIABILITY WAIVERS

EPA shall not be responsible for any harm to any State representative or other person arising out of, or resulting from any act or omission by the State in the course of an on-site visit. The State shall not be responsible for any harm to any EPA representative, or other person arising out of, or resulting from any act or omission by EPA in the course of an on-site visit.

8. **THIRD PARTY**

A. EXCLUSION OF THIRD PARTY BENEFIT

This Contract benefits only the State and EPA. It extends no benefits or rights, either expressed or implied, to any third party not a signatory to this Contract.

B. LIABILITY

EPA does not assume any liability to third parties with respect to losses due to bodily injury or property damages that exceed the limitations contained in the provisions of 28 U.S.C. Sections 1346(b) and 2671-2680. To the extent permitted by State law, the State does not assume liability to any third parties with respect to losses due to bodily injury or property damage.

9. **SITE-SPECIFIC STATEMENT OF WORK**

A site-specific Statement of Work ("SOW"), indicating the tasks to be performed for the response action under this Contract, including estimated costs, is attached as the **Second Amended Appendix A**.

10. **PROJECT SCHEDULE**

A general description of the project schedule/milestones for Projects 1, 2 and 3 by calendar year includes a project summary of deliverables (see **Second Amended Appendix C**), as specified in the Final Remedial Design documents (March 2011, December 2012, September 2013, April 2014, June 2015, August 2015 and March 2017) as approved by EPA and IDEM. The project schedule may be adjusted in writing by the joint authority of the RPM(s) and the SPM, without a formal amendment to this Contract, unless there is an extended delay to the schedule. Changes that significantly increase the project costs, or alter the scope of work, thereby affecting the State's ability to meet the conditions set out in this Contract, including cost-share requirements (see Section 18),

shall necessitate an amendment to this Contract.

11. STATE REVIEW

EPA will provide both hard and electronic copies of documents generated under this Contract to IDEM. IDEM shall timely review and transmit written comments on documents to EPA. EPA shall address any IDEM comments by incorporating them into the appropriate document or providing a written explanation to IDEM for each comment not incorporated. Specifically, all deliverable reviews shall not exceed 30 calendar days for draft documents and 15 calendar days for final documents unless agreed upon in writing by the RPM(s) and SPM. EPA shall provide the written explanation to any IDEM comments not incorporated within 15 days. The review time for major change orders shall be 14 calendar days.

12. PROGRESS REPORTS

EPA agrees to submit weekly or monthly written progress reports to the SPM. During periods of low activity, for example, winter months, the frequency of these reports may be reduced based on a written agreement between the SPM and RPM(s). These progress reports shall include an explanation of work accomplished during the reporting period, delays and problems encountered, along with a description of anticipated corrective measures and resolutions. These reports shall also include a summary of the work planned during the six-week period following the report submittal date. EPA shall also provide a comparison of the percentage of the project completed to the percentage indicated in the project schedule, detailing significant discrepancies, and expenditures to date within 30 days of the report submittal deadline. Progress report submittals shall occur no later than the tenth (10th) day of each month.

13. RECORDS ACCESS

At EPA's request, and to the extent allowed by State law, the State shall make available to EPA any information in its possession concerning the Site. At the State's request, and to the extent allowed by federal law, EPA shall make available, free of charge, to the State any information in its possession concerning the Site. EPA shall not disclose information submitted by the State under a claim of confidentiality unless EPA is required to do so by federal law and has given the State advance notice of its intent to release that information. Absent notice of such claim, and with the exception of certain policy, deliberative, and enforcement documents that may be held confidential, EPA may make said information available to the public without further notice.

14. RECORDS RETENTION

All financial and programmatic records, supporting documents, and statistical records, and other records related to the Site must be maintained for a minimum of ten years following the submission of the final Financial Status Report by EPA. If any litigation, claim, negotiation, audit, cost recovery, or other action involving the records has been

started before the expiration of the ten-year period, the records must be retained until the completion of the action and resolution of all issues which arise from it, or until the end of the regular ten-year period, whichever is later. Microfilm copying and electronic image copying shall be performed in accordance with all applicable State of Indiana records management and retention regulations which meet or exceed the technical regulations and records management procedures contained in 35 C.F.R. Part 1230 and U.S. EPA Order 2160, respectively.

15. STATEMENT OF INTENTION TO FOLLOW EPA POLICY AND GUIDANCE

In addition to the requirements specified in CERCLA and the NCP, all applicable program requirements (policy and guidance) identified in the Administrative Record shall be adhered to.

16. LIST OF SITE-SPECIFIC AGREEMENTS

Indiana Management Assistance Cooperative Agreement V-96500302-4 (08/03/2007).
Indiana Management Assistance Cooperative Agreement V-00E00994-0 (04/01/2012).
Indiana Management Assistance Cooperative Agreement V-01E00994 (04/01/2013).
Indiana Management Assistance Cooperative Agreement V-01E00994-1 (04/01/2014).
Indiana Management Assistance Cooperative Agreement V-02E00994 (04/01/2015).
Indiana Management Assistance Cooperative Agreement V-03E00994 (04/01/2016).

17. CERCLA ASSURANCE: COST SHARE

EPA and IDEM agree that facilities suspected of contributing to the contamination at the JNSC Site were privately operated during the time of the contaminant releases and, pursuant to Section 104(c)(3) and 104(d)(1) of CERCLA, IDEM's cost share for the remedial action at the Site is ten (10) percent. This Contract only covers ten percent (10%) of OU2-Projects 1, 2 and 3. The Contract must either be amended or a new Contract executed to obligate the State for subsequent OU2 Projects.

18. COST SHARE CONDITIONS

A. COST ESTIMATE

The estimated costs for all remedial actions (excluding EPA's indirect costs) to be performed under OU2 is \$135,000,000. This Contract only addresses OU2-Projects 1, 2 and 3.

- i. The estimated cost of the remedial action (excluding EPA's indirect costs) for JNSC OU 2-Project 1 is \$12,000,000. This estimate is derived from the Final Remedial Design (March 2011, June 2015 and August 2015) documents as approved by EPA and State, and includes contingencies for change orders, which may or may not be invoked, and construction management services. The basis of this cost estimate is explained in the

SOW included in **Second Amended Appendix A** to this Contract. Based on the funding limit for Project 1 of \$12,000,000, the State's funding assistance for the remedial action for Project 1 of OU2 under this Contract is \$1,200,000.

- ii. The estimated cost of the remedial action (excluding EPA's indirect costs) for JNSC OU2-Project 2 is \$15,000,000. This estimate is derived from the Final Remedial Design (December 2012, September 2013, and April 2014) documents as approved by EPA and the State and includes contingencies for change orders, which may or may not be invoked, and construction management services. The basis of this cost estimate is explained in the SOW included in **Second Amended Appendix A** to this Contract. Based on the funding limit for Project 2 of \$15,000,000, the State's funding assistance for the remedial action for Project 2 of OU2 under this Contract is \$1,500,000.
- iii. The estimated cost of the remedial action (excluding EPA's indirect costs) for JNSC OU2-Project 3 is \$18,000,000. This estimate is derived from the draft Final Remedial Design (January 2017) documents as approved by EPA and State, and includes contingencies for change orders, which may or may not be invoked, and construction management services. The basis of this cost estimate is explained in the SOW included in the **Second Amended Appendix A** to this Contract. Based on the funding limit for Project 3 of \$18,000,000, the State's funding assistance for the remedial action for Project 3 of OU2 under this Contract is \$1,800,000.
- iv. Project costs that increase the State's funding assistance for the remedial action above the estimated cost for Projects 1, 2 and 3 respectively will require a written amendment of this Contract. Every six months, from the date the Contract is signed, the lead agency (EPA) will assess the budget (expenditures and projected future costs to complete) to evaluate any significant changes to the estimated cost of completion. EPA will work with IDEM to determine if an amendment to this Contract is necessary.

B. PAYMENT TERMS

- i. EPA shall pay 90 percent of the total capital costs of those remedial actions for JNSC OU2-Projects 1, 2 and 3 described in the SOW. Pursuant to IC 13-25-4-4, the Commissioner of the IDEM hereby assures that the State shall pay ten (10) percent of the costs of those remedial actions for JNSC OU2-Projects 1, 2 and 3 described in the SOW. The State's ten (10) percent cost share shall not exceed the cost estimate presented in Section 18.A.i. ii. and iii. above. If EPA determines the ten (10) percent cost share for the State exceeds the amount listed in Section 18.A.i. ii. and iii., above, an amendment to this SSC will be required.

- ii. The State shall submit two (2) payments to EPA for JNSC OU2-Project 1. The first will be for half the State's estimated cost-share total of \$1,200,000 (see Section 18.A.i.), which is \$600,000. Within 90 days of the final signature of this Contract, EPA shall invoice the State for the first payment. Within 90 days from the receipt of the invoice, the State will remit payment to EPA. The second and final payment will be made after completion of the JNSC OU2-Project 1 remedial action. Further remedial actions for subsequent Projects under this OU will be addressed through amendments to this Contract which shall require additional cost estimates and cost share conditions for each Project added by amendment to this Contract. The State shall make best efforts to obtain funding, through appropriations or otherwise, to meet future ten (10) percent cost share obligations for each Project added by amendment to this Contract.

(In accordance with the terms of this Contract, EPA invoiced IDEM on December 12, 2011 for the initial payment of its cost share for JNSC OU2-Project 1. On April 4, 2012 IDEM submitted a payment of \$600,000.00 to EPA for the State's initial cost share payment for JNSC OU2-Project 1. IDEM has thereby fulfilled the initial cost share payment requirement.)

- iii. The State shall submit two payments to EPA for JNSC OU2-Project 2. The first will be for half the State's estimated cost-share total of \$1,500,000 (see Section 18.A.ii.) of the JNSC OU2-Project 2, which is \$750,000. Within 120 days of the final signature of Amendment #1, EPA shall invoice the State for the first payment. Within 120 days from the receipt of invoice, the State will remit payment to EPA. The second and final payment will be made after completion of the JNSC OU2-Project 2 remedial action.

In accordance with the terms of this Contract, EPA invoiced IDEM on December 18, 2012 for the initial payment of its cost share for JNSC OU2-Project 2. On January 22, 2013, IDEM submitted a payment of \$750,000 to EPA for the State's initial cost share payment for JNSC OU2-Project 2. IDEM has thereby fulfilled the initial cost share payment requirement.

- iv. The State shall submit two payments to EPA for JNSC OU2-Project 3. The first will be for half the State's estimated cost-share total of \$1,800,000 (see Section 18.A.iii.) of the JNSC OU2-Project 3, which is \$900,000. Within 120 days of the final signature of Amendment #2, EPA shall invoice the State for the first payment. Within 120 days from the receipt of invoice, the State will remit payment to EPA. The second and final payment will be made after completion of the JNSC OU2-Project 3 remedial action.

- v. After the completion of the cleanup of the properties in JNSC OU2-Project 1, per the approved Final Remedial Design documents, EPA shall submit to the State a determination of the final actual remedial clean-up cost. Within 90 days from the Parties' acceptance of the Remedial Action Completion Report, EPA will submit an itemized, detailed invoice of the actual remedial action costs for the Project to the State. If the final amount is less than the amount listed in Section 18. A.i. above, EPA shall submit an invoice to the State totaling the balance of the actual cost due. Within 120 days from the receipt of the invoice, the State will remit payment for the State's share of the remaining cost to EPA. In the event the actual cost exceeds the estimated State's funding assistance listed in Section 18. A.i., a written amendment to this Contract will be required prior to any further payment.
- vi. After the completion of the cleanup of the properties in JNSC OU2-Project 2, consistent with the approved Final Remedial Design documents, EPA shall submit to the State a determination of the final actual remedial clean-up cost. Within 90 days from the Parties' acceptance of the Remedial Action Completion Report, EPA will submit an itemized, detailed invoice of the actual remedial action costs for the Project to the State. If the final amount is less than the amount listed in Section 18.A.ii. above, EPA shall submit an invoice to the State totaling the balance of the actual cost due. Within 120 days from the receipt of the invoice, the State will remit payment for the State's share of the remaining cost to EPA. In the event the actual cost exceeds the estimated State's funding assistance listed in Section 18.A.iii. a written amendment to this Contract will be required prior to any further payment.
- vii. After the completion of the cleanup of the properties in JNSC OU2-Project 3, consistent with the approved Final Remedial Design documents, EPA shall submit to the State a determination of the final actual remedial clean-up cost. Within 90 days from the Parties' acceptance of the Remedial Action Completion Report, EPA will submit an itemized, detailed invoice of the actual remedial action costs for the Project to the State. If the final amount is less than the amount listed in Section 18.A.iii. above, EPA shall submit an invoice to the State totaling the balance of the actual cost due. Within 120 days from the receipt of the invoice, the State will remit payment for the State's share of the remaining cost to EPA. In the event the actual cost exceeds the estimated State's funding assistance listed in Section 18.A.iv. a written amendment to this Contract will be required prior to any further payment.
- viii. The State shall send all payments to the following address:

U.S. Environmental Protection Agency
Superfund Payments

Cincinnati Finance Center
P.O. Box 979076
St. Louis MO 63197-9000

Payments by the State should reference the "Jacobsville SSC" and EPA site number B51Z and IDEM site number 7500100.

19. **EMERGENCY RESPONSE ACTIVITIES**

Emergency response activities, including removal actions under the authority of the NCP, shall not be restricted by the terms of this Contract. However, remedial response activities may be suspended until the emergency activities are concluded, in which case, the response activities, cost share, or other terms of this Contract may be subject to amendment.

20. **CERCLA ASSURANCE: 20-YEAR WASTE CAPACITY ASSURANCE**

The State previously submitted its Waste Capacity Assurance Plan to EPA, which EPA deemed adequate. The State hereby assures the availability of hazardous waste treatment and disposal facilities that meet the requirements of subtitle C of the Solid Waste Disposal Act for the next 20 years, following signature of this Contract, pursuant to CERCLA 104(c)(9).

21. **CERCLA ASSURANCE: OFF-SITE STORAGE, TREATMENT, OR DISPOSAL**

Pursuant to §§104(c)(3)(B) and 121(d)(3) of CERCLA, as amended, EPA and the State have determined that off-Site treatment, storage, or disposal of hazardous substances may be required for this response action. EPA, or its representative, in its invitation for bids for remedial action, shall require respondents to provide adequate capacity for waste disposal at a facility (or facilities) that, at a minimum, meet(s) the requirements of Subtitle C of the Solid Waste Disposal Act. The State's acceptance of EPA's selection shall constitute such assurance.

22. **NOTIFICATION OF TRANSFERS OF CERCLA WASTE**

EPA must provide written notification prior to the shipment of waste from the Site to an out-of-State waste management facility, to:

A. The appropriate State environmental official for the State in which the waste management facility is located; and/or

B. The appropriate Indian Tribal official who has jurisdictional authority in the area where the waste management facility is located.

23. **CERCLA ASSURANCE: REAL PROPERTY ACQUISITION**

EPA and IDEM agree that an interest in real property will not need to be acquired in order to implement the remedial action.

24. **PROJECT-SPECIFIC REMEDIAL ACTION COMPLETION INSPECTIONS AND REPORTS AND PREFINAL JOINT INSPECTION AND PRELIMINARY CLOSE OUT REPORT**

A. A preliminary inspection shall be conducted for each OU2 Project upon completion of remedial action for each OU2 Project at the JNSC Superfund Site. Each preliminary inspection shall be led by the RPM(s) and scheduled in consultation with the SPM. Participants to accompany the RPM(s) include the SPM and may include contractor personnel.

B. Each preliminary inspection shall consist of a survey of the Project remedial action to determine whether the Project is complete and consistent with the contract documents and the EPA-approved remedy. Jointly, EPA and the State shall determine if there are any outstanding items. The RPM(s) shall notify the remedial action contractor of the corrections that are needed before a determination of Project completion can be made. An attempt shall be made to determine resolutions for all remaining issues.

C. Upon satisfactory resolution of all issues identified in the preliminary inspection, the RPM(s) shall prepare a Remedial Action Completion Report for each OU2 Project of JNSC, certifying that the remedy for the Project has been substantially completed. The RPM(s) shall provide the SPM one electronic copy of the Remedial Action Completion Report and one hard copy of the Report for each OU2 Project. The RPM(s) will notify the SPM when it is not possible to provide the Remedial Action Completion Report in electronic format. In this case, the RPM(s) will provide three (3) hard copies of the report to the SPM.

D. The Remedial Action Completion Report for each OU2 Project will be reviewed by the State and EPA. The RPM(s) will coordinate, with the SPM, to assure that the State's acceptance is complete. Then the RPM(s) shall provide written notice to the SPM of EPA's acceptance of completion for each OU2 Project.

E. A prefinal inspection shall be conducted upon preliminary completion of the remedial action at the JNSC Superfund Site OU2. The prefinal inspection shall be led by the RPM(s) and scheduled in consultation with the SPM. Participants to accompany the RPM(s) include the SPM and may include Contractor Personnel.

F. The prefinal inspection, at a minimum, shall consist of a walk-through inspection of the OU2 site. This inspection will survey the completed remedial action determining whether the OU2 remedy is complete and consistent with the contract documents and the EPA-approved remedy. Jointly, EPA and the State shall determine if there are any

outstanding items. An attempt shall be made to determine resolutions for all remaining issues.

G. One electronic copy of the written prefinal inspection report called a Preliminary Closeout Report ("PCOR") shall be provided by the RPM(s) to the SPM for review. The SPM's signature on the report will constitute its acceptance of the resolutions specified in the PCOR.

25. FINAL JOINT INSPECTION OF THE REMEDY

A. The RPM(s) shall conduct a final inspection of the JNSC OU2 remedy upon completion of any outstanding items. The RPM(s) shall schedule the final inspection in consultation with the SPM. The inspection will be led by the RPM(s) and include the SPM and all other parties from the prefinal inspection (if available or as deemed necessary by both Parties).

B. The final inspection at a minimum shall consist of a walk-through inspection of JNSC OU2 site, with the inspection focusing upon the outstanding items identified in the relevant prefinal inspection. EPA and the State shall jointly determine if all outstanding items have been resolved. If any items are still unresolved, the inspection shall be considered a prefinal inspection requiring another PCOR. The RPM(s) shall notify the remedial action contractor of the corrections that are needed before a determination of construction completion can be made. An attempt shall be made to determine resolutions for all remaining issues.

C. Upon satisfactory resolution of all issues identified in the final inspection, the RPM(s) shall prepare a Final Remedial Action Report for all OU2 Projects for the JNSC site, certifying that the remedy has been substantially completed. The RPM(s) shall provide the SPM one electronic copy of the Final Remedial Action Report and one hard copy of the Report. The RPM(s) will notify the SPM when it is not possible to provide the Final Remedial Action Report in electronic format. In this case, the RPM(s) will provide three (3) hard copies of the report to the SPM.

D. The Final Remedial Action Report will be reviewed by the State and EPA. The RPM(s) will coordinate, with the SPM, to assure that the State's acceptance is complete. Then the RPM(s) shall provide written notice to the SPM of EPA's acceptance of the completed project.

E. EPA, in consultation with the State, will determine when CERCLA-funded response actions described in the SOW have been completed.

26. CERCLA ASSURANCE: OPERATION AND MAINTENANCE

If all properties requiring remediation in OU2 are cleaned up, no operation and maintenance (O&M) activities will be required. In conducting the work, EPA will use best efforts to access and clean up all properties that require remediation. If properties

with soil that exceeds the cleanup standards for lead and/or arsenic are not cleaned up by the time all of the OU2 Projects are done, some O&M may be necessary. The Parties plan to address O&M activities in more detail prior to completion of all OU2 activities.

27. **CERCLA ASSURANCE: INSTITUTIONAL CONTROLS**

The ROD calls for an institutional control (IC) in the form of a database or "registry" that contains information on the cleanup and sampling status of each property. EPA will be developing the database and will be entering the data. During the time that the cleanup of OU2 is EPA's responsibility, EPA will maintain the database. However, EPA and the State shall make arrangements with a local entity, such as the city or county, to take over long-term maintenance of the database. Given the duration of the Jacobsville cleanup, IC issues will be addressed as part of a long-term stewardship plan in a future SSC.

28. **COMPLIANCE WITH LAWS**

EPA and the State hereby agree to require that any contractors implementing the work comply with all applicable Federal and State laws and regulations.

29. **NATIONAL PRIORITY LIST DELETION**

EPA shall consult and provide the State with the deletion package and give the State the opportunity to comment before deleting the Site from the NPL. The State must concur in writing in order for EPA to proceed with NPL deletion.

30. **RESPONSIBLE PARTY ACTIVITIES**

If at any time during the period of the Contract a responsible party comes forward to perform any work covered by this Contract, this Contract may be amended or terminated if the work is performed by the potentially responsible party in a manner acceptable to EPA and the State.

31. **ENFORCEMENT**

This Contract does not constitute a waiver of EPA's right to bring an action against any person or persons for liability under §§106 or 107 of CERCLA, or any other statutory provision or common law.

This Contract does not constitute a waiver of the State's right to bring an action against any person or persons for liability under CERCLA or any other State or Federal statutory or regulatory provision or common law.

32. **ENFORCEMENT, LITIGATION, AND COST RECOVERY**

A. EPA and the State may be entitled to assert claims against a third party (herein

referred to as Potentially Responsible Party(ies) ("PRP(s)") for reimbursement of any services, materials, monies or other thing of value expended by EPA or the State for fund-financed response activity, related to the remedial action for the OU and Projects covered by this Contract.

i. EPA and the State hereby agree that they will cooperate in and coordinate efforts to recover their respective costs of response actions taken at the JNSC OU2 site, including the negotiation of settlements and the filing and management of judicial actions against any PRPs. EPA and the State also hereby agree that neither agency shall enter into a settlement with or initiate a judicial or administrative proceeding against a PRP for the recovery of such sums, except after having given notice in writing to the other party to this Contract, prior to or concurrent with commencement of the judicial or administrative proceedings and will take appropriate steps to preserve the recovery rights of the other party.

ii. Neither party to this Contract shall attempt to negotiate for or collect reimbursement of any Contract-specific response costs related to the remedial action covered by this Contract on behalf of the other party, without the specific written authority of the other party.

iii. If either EPA or IDEM recovers monies from PRPs, the monies shall reduce the total CERCLA-funded expenditures for the remedial action that require cost share. This reduction in the cost share amount shall not alter the cost share percentage defined above. Any cost recoveries for the Site shall necessitate an amendment to this Contract (see Amendability section, below).

33. **ISSUE RESOLUTION**

A. Any disagreements arising under this contract shall be resolved to the extent possible by the RPMs and the SPM.

B. If any such disagreement cannot be resolved by the RPMs and SPM, the dispute resolution procedures outlined in the State Memorandum of Agreement (SMOA) shall be followed. The matter shall be referred to the Regional Superfund Division Director.

C. The decision of the dispute decision official will constitute the final agency action, unless IDEM files a request for review of that decision with the Regional Administrator, U.S. EPA, Region 5.

D. If the Regional Administrator confirms the decision of the dispute decision official, IDEM may seek review from the Assistant Administrator, OSWER, U.S. EPA.

E. Contractual resolutions and final audit determinations impacting this CERCLA-funded remedial action shall be binding on both EPA and the State and may require an amendment to the SSC (see Amendability section below).

34. **SANCTIONS FOR FAILURE TO COMPLY WITH TERMS OF THIS SSC**

After all administrative remedies have been exhausted, if the State fails to comply with the terms of this Contract, including any CERCLA assurance provided or the negotiated payment terms, EPA may proceed under the provisions of §104(d)(2) of CERCLA and seek to enforce this Contract in an appropriate court of competent jurisdiction. If EPA breaches this Contract, the State may file suit and seek remedies in an appropriate court of competent jurisdiction.

35. **AMENDABILITY**

This Contract may be amended for reasons including, but not limited to, the desire to revise allowable costs or terms to undertake modifications to the remedial activities. Written amendments are required when alterations to CERCLA-funded activities change the scope of work or when alterations impact the States Assurances pursuant to the NCP and CERCLA, as amended. Such amendments must include a Statement of Work (SOW). Any change(s) in this SSC must be agreed to, in writing, by the signatories, and must be reflected in all response agreements affected by the change(s).

36. **TERMINATION OF THIS CONTRACT**

A. Termination may occur for cause, conclusion or failure to comply with the terms and conditions herein. The parties may enter into a termination agreement which will establish the effective date for the termination of this Contract, the basis for settlement of termination costs, and the amount and date of any sums due either party. Reconciliation costs will include all project costs incurred as well as any close-out costs.

B. If at any time during the period of this Contract, performance of either all or part of the work described in the SOW is voluntarily funded, or funded for any other reason by persons or entities not party to this Contract, this Contract will be modified or terminated as appropriate to allow these actions. Upon modification or termination, the parties to this Contract shall be relieved from further duties to perform those actions funded by persons or entities not party to this Contract.

37. **RECONCILIATION PROVISION**

This Contract shall remain in effect until the financial settlement of project costs and final reconciliation of response costs (including change orders, claims, overpayment, reimbursements, etc.) for the OU2-Projects 1, 2 and 3 have been completed and the 90/10 cost share requirement has been satisfied, unless terminated by operation of law or pursuant to the provisions herein. EPA will not use overpayment by the State to satisfy obligations at another site, except as provided below. In the event that the payment terms above do not cover the cost of the remedial action for OU2-Projects 1, and/or 2, and/or 3, EPA will only invoice the State for the State cost share after amendment of this Contract in accordance with Section 18 and subject to Section 36 above. Upon final reconciliation, in the event that the State's expenditures exceed its cost share for the

entire Site, EPA will provide the State with written documentation stating that EPA agrees to credit the State the excess amount toward other Indiana CERCLA site(s) or toward other permissible uses within Indiana. Final reconciliation of all remedial actions, by EPA, shall follow the acceptance of the remedy any by both the EPA and the IDEM and is not contingent upon deletion of the Site from the NPL.

38. CONCLUSION OF THE SSC

This Contract is concluded when:

- A. Remedial action response activities at JNSC OU2-Projects 1, 2 and 3 have been completed to the satisfaction of EPA and IDEM and payments have been made, as specified under the Cost Share Conditions of this Contract;
- B. The Financial Management Officer (FMO) has provided a final accounting of all project costs, including change orders and contractor claims, pursuant to Reconciliation Provision, above; and
- C. All State cost share payments have been satisfied (see 40 CFR Part 35.6805(i)(5)).

39. ATTACHMENTS AND AMENDMENTS

Second Amended Appendix A – Statement of Work for all OU2 Projects including Costs
for Projects 1, 2 and 3

Amended Appendix B – Site Description

Second Amended Appendix C – Project Schedules and Deliverables

State of Indiana Non-Collusion Clause:

The undersigned signatories for the State of Indiana attest, subject to the penalties for perjury, that each of them is the properly authorized representative of his/her Department, Office or Agency, that he/she has not, nor has any other member, employee, representative, agent or officer of the Department, Office or Agency, directly or indirectly, to the best of the undersigns' knowledge, entered into or offered to enter into any combination, collusion or agreement to receive or pay, and that he/she has not received or paid, any sum of money or other consideration for the execution of this Contract other than that which appears upon the face of the Contract.

In WITNESS WHEREOF, the parties hereto have executed this Contract in two (2) copies, each of which shall be deemed an original.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



Margaret M. Guerriero
Acting Director
Superfund Division
U.S. EPA Region 5

Date

4/6/2017

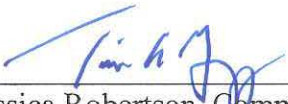
STATE OF INDIANA



Bruno L. Pigott, Commissioner
Indiana Department of Environmental
Management

Date

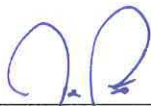
4/21/17



(for)
Jessica Robertson, Commissioner
Indiana Department of Administration

Date

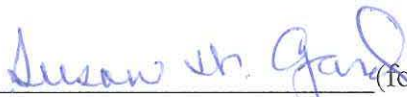
4/26/17



(for)
Jason D. Dudich, Director
Indiana State Budget Agency

Date

4-28-17



(for)
Curtis T. Hill Jr., Attorney General
State of Indiana

Date

5/4/2017

Second Amended Appendix A

STATEMENT OF WORK

Description of Selected Remedy

The selected remedy for OU2 is specified in the Record of Decision dated September 22, 2009, and consists of excavating soil material from the residential properties that have concentrations in the soil that exceed the site-specific clean up levels for arsenic and/or lead. The depth of excavation will be determined at each residential property by determining the depth of contamination at each property (up to a maximum depth of 18 inches) and any physical barriers limiting excavation. The cleanup levels for both OU1 and OU2 are 400 parts per million (ppm) for lead and 30 ppm for arsenic. For all JNSC OU2 Projects, soil will be excavated down to a maximum depth of 18 inches as necessary to remove elevated lead and arsenic contamination above the cleanup levels. Clean soils will be backfilled into the property and the property will be restored to as near the original condition as possible.

As part of the remedial design process, the following activities will be completed prior to the start of remedial action for each project of the JNSC OU2 site:

- Community outreach - property owners within each OU2 project will be contacted to gain access to their property to sample the soils and implement the remedy. Educational materials about lead and arsenic will be developed and distributed to the community.
- Utilities within the proposed excavation areas will be marked and temporarily relocated as needed.
- Soil from residential and "high access" properties (such as parks, schools, playgrounds and day care facilities) within each OU2 Project boundaries will be sampled down to 18 inches to determine if they contain concentrations of arsenic and/or lead that are greater than the cleanup levels for the site. The cleanup levels for the Site are 400 ppm for lead and 30 ppm for arsenic.
- Letters will be sent to the residents and property owners to notify them of the soil testing results and whether their property(ies) will require cleanup.
- A Final Remedial Design for the properties identified as requiring cleanup will be completed.

Main Components of Selected Remedy

The main components of the selected remedy, the costs of which are covered by this Contract, include the following:

- Community outreach - Property owners within JNSC OU2-Projects 1, 2 and 3 will be provided with information about the cleanup process. Educational materials about lead and arsenic will be developed and distributed to the community. At least two public meetings will be held to discuss the remedial

action.

- Prior to any excavation activities, a residential property checklist will be completed that inventories and documents current vegetation, landscaping materials, structures (i.e., fencing, decks, above-ground pools, playground equipment, sidewalks, driveways, etc.) and their conditions. Photographic documentation of pre-excavation property conditions outside and potentially inside structures on the property will be performed.
- Residential soils containing concentrations greater than the arsenic and lead cleanup levels will have the soils excavated to the depth that the elevated concentrations were found (up to 18 inches). If physical barriers exist, such as trees, soil excavation will be done around the barrier to the extent possible. Engineering controls will be implemented in order to prevent exposure to lead and arsenic from dust created by the excavation of the soils. Building foundations, permanent walkways and fixtures should not be affected by the soil excavation. Any damage to these structures as a direct result of remedy implementation will be repaired to pre-remedy conditions or better.
- Excavated soils will be transported to a RCRA Subtitle D landfill. This remedy assumes that the excavated soil will not be characterized as hazardous waste. Soil samples will be analyzed regularly to verify that the soil is not characteristically hazardous.
- Clean general fill and top soil will be placed in the excavated areas and the properties will be returned to as close to their original condition as possible. Backfilling will be performed to assure that storm water runoff is directed away from permanent structures. Structures moved during excavation will be replaced or returned to pre-excavation locations and conditions.
- A database will be developed and maintained by EPA to serve as a tracking tool and also as an institutional control (IC) that the public will have access to so that they can understand the status of a property (see Section 27).

Specific Tasks to be Performed to Implement the Selected Remedy

EPA shall conduct the remedial action for JNSC OU2 Projects in accordance with EPA Superfund Remedial Action Guidance, the September 22, 2009 Record of Decision for the Site and the approved project-specific Final Remedial Design documents for the Site.

Task 1 – Pre-Excavation Documentation

- Complete a residential property checklist that inventories and documents current vegetation, landscaping materials, structures (i.e., fencing, decks, above-ground pools, playground sets, sidewalks, driveways, etc.) and their conditions.
- Collect photographic documentation of current property conditions outside and potentially inside structures on the property.

Task 2 - Contaminated Soil Removal and Disposal

- Excavate contaminated soils to a predetermined depth based on sampling results. Excavation shall be performed with excavating equipment to the extent practicable and then with hand tools as necessary.
- Transport contaminated soil for disposal at an approved Subtitle D landfill. One soil sample for every 500 tons of soil excavated will be analyzed for hazardous characteristics. If the soil is found to be hazardous, arrangements will be made to ship it to a Subtitle C landfill.

Task 3 – Property Restoration

- Use clean general fill and topsoil to backfill excavated areas. Backfilling shall be performed as close to the original grade and condition as possible.
- Assure that storm water runoff is directed away from permanent structures.
- Restore vegetative growth as close as possible to original conditions.
- Replace or return to pre-excavation locations and conditions the structures that were moved during excavation.

Task 4 – Post-Restoration Documentation

- Compare pre-excavation checklists and photographic documentation to post-restoration property conditions.
- Collect additional photographic documentation to document post-restoration conditions.

Task 5 – Remaining Contamination at Depths Greater than Eighteen Inches

- At properties where lead and/or arsenic levels greater than the cleanup goals remain at depths greater than 18 inches below the surface, a warning barrier may be placed in the excavated areas prior to backfilling with clean soils. Since lead and arsenic in concentrations greater than cleanup levels have only been found at one percent of the properties at depths greater than one foot during previous sampling events at the Site, EPA believes that warning barriers will not be necessary in most cases. Properties requiring a warning barrier will be placed in the database or registry per Section 27 of the SSC for each project of OU2 as identified in this Contract.

Task 6 – Public Meetings

- Conduct a minimum of two public meetings to provide information to the community of the status of the remediation. The public meetings are also to provide a forum to seek cooperation and participation in the sampling and remediation efforts.

Task 7 – Letters to Property Owners

- After the conclusion of restoration for each property, EPA shall provide a letter to the property owner informing the owner that restoration has been completed and no further work is contemplated at the property.
- If a warning barrier is necessary (see Task 5), the letter will include notification and relevant information of its placement.

Task 8 – Project-Specific Remedial Action Completion Reports

- EPA will prepare a Remedial Action Completion Report for each OU2 Project.

Estimated Cost of Remediation: OU2-Project 1

The cost estimate in Section 18.A.i. of this Contract is calculated from the final engineer's estimate of construction cost for JNSC OU2-Project 1 based on the Final Remedial Design documents to be \$12,000,000 (with an accuracy of within +15 and -5 percent). Based on the funding limit of \$12,000,000 for Project 1, the State's funding assistance for the remedial action for Project 1 of OU2 under this Contract is \$1,200,000. The final cost of the cleanup work will depend on factors such as the actual costs of labor and materials, competitive market conditions, implementation schedule, and pace at which the work is completed. Note that the work related to obtaining access to the properties and collecting soil samples was done as part of the design process, so these costs are not included under this Contract.

For organizational purposes, the sampling associated with OU2-Project 1 was done in three separate sampling events. As of the writing of this Contract, sampling had been completed for 636 of the 1,000 Project 1 properties to which requests for access had been mailed (see Appendix B). The Final Remedial Design for OU2-Project 1, which included designs for 470 properties, was completed in two separate documents. One document included designs for 366 properties, and the other document included designs for 104 properties. Each of these design documents included a cost estimate for the cleanup.

Table 1 shows a summary of the estimated costs for Project 1. The average estimated cost per property based on the Final Remedial Design for the first 366 homes was \$22,660, and the average estimated cost per property based on the Final Remedial Design for the next 104 homes was \$25,823. To be conservative, a slightly higher average cost per property of \$25,532 was used to estimate that cleanup of 470 properties in OU2-Project 1 would cost \$12,000,000.

**TABLE 1 COST ESTIMATES FOR OU2-PROJECT 1 BASED ON
ENGINEER'S ESTIMATE IN FINAL REMEDIAL DESIGNS**

Phase	Number of Properties	Estimated Capital and Optional Costs	Estimated Average Cost per Property
Final Remedial Design (2012)	366	\$8,293,620	\$22,660
Final Remedial Design (2013)	104	\$2,685,618	\$25,823
OU2-Project 1	470	\$12,000,000	\$25,532

The engineer's cost estimate included capital costs and optional items. The costs for the optional items represented approximately five percent of the total cost and are included in the figures presented in Table 1. The final engineer's estimate of construction cost included all work related to soil excavation, backfilling and property restoration and was calculated with an accuracy of within +15 and -5 percent.

If the actual cost per property for remediation is less than the \$25,532 presented in Table 1, which was the figure used to determine the Cost Estimate in Section 18.A.i. of this Contract, remediation of additional properties will likely be possible under this Contract without the necessity of an amendment. As long as the actual cost of the remediation of OU2-Project 1 does not exceed the Estimated Cost in Section 18.A.i., and the number of properties cleaned up does not exceed 1,000, an amendment to this Contract will not be necessary.

Note: The actual cost of remediation for OU2-Project 1 was almost 50 percent under the estimated budget. In December 2015, EPA and IDEM agreed to remediate up to 280 properties with the remaining SSC budget for OU2-Project 1 of approximately \$5,500,000. As of the execution of the Second Amendment to the SSC, OU2-Project 1 remediation is nearly 100% complete. A total of 678 properties were cleaned up using Project 1 funding.

Table 2 shows the actual cleanup costs for OU2-Project 1. The significant increase in the average cost per property for the work completed at 209 properties in 2016 was primarily due to the higher average volume of soil excavated and the larger size of the properties.

TABLE 2 ACTUAL COSTS FOR OU2-PROJECT 1

Phase	Cleanup Timeframe	Number of Properties	Capital and Optional Costs	Average Cost per Property
Final Remedial Design (2012)	2012	365	\$6,507,960	\$13,876
Final Remedial Design (2013)	2013	104		
Final Remedial Design (2015)	2016	209	\$5,492,040	\$26,278

OU2-Project 1	2012-2016	678	\$12,000,000	\$17,699
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Estimated Cost of Remediation: OU2-Project 2

The cost estimate in Section 18.A.ii. of this Contract for OU2-Project 2 is calculated from the final engineer's estimate of construction cost for JNSC OU2-Project 2 based on the Final Remedial Design documents to be \$15,000,000 (with an accuracy of within +15 and -5 percent). Based on the funding limit of \$15,000,000 for Project 2, the State's funding assistance for the remedial action for Project 2 of OU2 under this Contract is \$1,500,000. The final cost of the cleanup work will depend on factors such as the actual costs of labor and materials, competitive market conditions, implementation schedule, and pace at which the work is completed. Note that the work related to obtaining access to the properties and collecting soil samples was done as part of the design process, so these costs are not included under this Contract.

For organizational purposes, the sampling associated with OU2-Project 2 was conducted in several sampling events. As of the execution of Amendment #1, sampling had been completed for approximately 600 of the 1,200 properties to which requests for access had been mailed (See Appendix B). The Final Remedial Design for OU2-Project 2 was completed in three separate documents. One document, completed in December 2012, included designs for 346 properties. The other two documents, completed in September 2013 and April 2014, included designs for approximately 120 properties and 551 properties, respectively. Each of these design documents included a cost estimate for the cleanup.

Table 3 shows a summary of the estimated costs for Project 2 that were available at the time that the Contract for OU2-Project 2 was signed in 2012. The average cost per property for the first 346 homes (based on the Final Remedial Design dated December 2012) was \$26,780. To be conservative, an average cost per property of \$30,000 was used to estimate that cleanup of an estimated 500 properties in OU2-Project 2 would cost \$15,000,000.

TABLE 3 COST ESTIMATES FOR OU2-PROJECT 2 BASED ON ENGINEER'S ESTIMATE IN FINAL REMEDIAL DESIGN (December 2012)

Phase	Number of Properties	Estimated Capital and Optional Costs	Estimated Average Cost per Property
Final Remedial Design (Dec 2012)	346	\$9,264,900	\$26,780
Final Remedial Design (TBD)	~150	TBD	TBD
OU2-Project 2	500	\$15,000,000	\$30,000

Table 3A shows the estimated costs for Project 2 shown in Table 3 along with the

estimates included in the Final Remedial Designs completed after the Contract for OU2-Project 2 had been signed. As summarized in Table 3A, the average cost per property for the 120 homes (based on the Final Remedial Design dated September 2013) was \$22,250, and the average cost per property for the final 551 homes (based on the Final Remedial Design dated April 2014) was \$41,260. [Note: As shown in Table 4, due to actual costs being significantly lower than the estimates, 900 properties were remediated under OU2-Project 2.]

TABLE 3A COST ESTIMATES FOR OU2-PROJECT 2 BASED ON ENGINEER'S ESTIMATE IN FINAL REMEDIAL DESIGNS

Phase	Number of Properties	Estimated Capital and Optional Costs	Estimated Average Cost per Property
Final Remedial Design (Dec 2012)	346	\$9,264,900	\$26,780
Final Remedial Design (Sept 2013)	120	\$2,670,000	\$22,250
Final Remedial Design (April 2014)	551	\$22,735,000	\$41,260
OU2-Project 2	1,017	\$15,000,000 \$34,670,000	\$34,000

The engineer's cost estimate included capital costs and optional items. The costs for the optional items represented approximately five percent of the total cost and are included in the figures presented in Table 3. The final engineer's estimate of construction cost included all work related to soil excavation, backfilling and property restoration and was calculated with an accuracy of within +20 and -15 percent.

If the actual cost per property for remediation is less than the amount presented in Table 3, which was the figure used to determine the Cost Estimate in Section 18A.ii. of this Contract, remediation of additional properties will likely be possible under this Contract without the necessity of an amendment. As long as the actual cost of the remediation of OU2-Project 2 does not exceed the Estimated Cost in Section 18A.ii., and the number of properties cleaned up does not exceed 1,000, an amendment to this Contract will not be necessary.

Note: The actual cost of remediation of the first set of 470 properties completed under OU2-Project 2 in 2012-2013 was almost 50 percent under the estimated budget. The remaining funding was used to remediate additional properties, and a total of 900 residential properties were remediated with OU2-Project 2 funding. Table 4 shows the actual estimated costs. Because all 900 properties were done under one contract, the breakdowns per Final Remedial Design are not available.

TABLE 4 ACTUAL COSTS FOR OU2-PROJECT 2

Phase	Cleanup Timeframe	Number of Properties	Capital and Optional Costs	Average Cost per Property
Final Remedial Design (Dec 2012)	2013-2015	900	~\$16,500,000	~\$18,300
Final Remedial Design (Sept 2013)				
Final Remedial Design (Apr 2014)				
OU2-Project 1	2013-2015	900	~\$16,500,000	~\$18,300

The \$16,500,000 is the approximate total cost based on a Request for Equitable Adjustment submitted by the subcontractor in 2014 and approved by EPA in 2016.

Estimated Cost of Remediation: OU2-Project 3

The cost estimate of \$18,000,000 in Section 18A.iii. of this Contract is calculated from the final engineer's estimate of construction cost for JNSC OU2-Project 3 based on the Final Remedial Design documents (with an accuracy of within +30 and 20- percent). Based on the funding limit of \$18,000,000 for this Contract, the State's funding assistance for the remedial action for Project 3 of OU2 under this Contract is \$1,800,000. The final cost of the cleanup work will depend on factors such as the actual costs of labor and materials, competitive market conditions, implementation schedule, and pace at which the work is completed. Note that the work related to obtaining access to the properties and collecting soil samples was done as part of the design process, so these costs are not included under this Contract.

Several samplings were conducted to generate the designs associated with OU2-Project 3. As of the writing of this Amendment, the initial phase of sampling was completed in August and September 2016, which resulted in 373 properties requiring cleanup (see Appendix B). The Final Remedial Design for the first phase of OU2-Project 3 will be completed in March 2017. The costs for the 700 properties under Project 3 are based on previous Remedial Designs.

Table 5 shows a summary of the estimated costs. The average cost per property based on the Draft Final Remedial Design for the first 373 homes is \$32,881. Based on costs for the cleanups completed in 2016, which are anticipated to be similar in excavation volume and property size to those that will be done under Project 3, a slightly lower average cost per property of \$25,714 was used to estimate that cleanup of 700 properties in OU2-Project 3 will cost \$18,000,000.

**TABLE 5 ESTIMATED COSTS FOR OU2-PROJECT 3 BASED ON
ENGINEER'S ESTIMATE IN DRAFT FINAL REMEDIAL DESIGN**

Phase	Number of Properties	Estimated Capital and Optional Costs	Average Cost per Property
Final Remedial Design (Mar 2017)	373	\$12,264,760	\$32,881
Final Remedial Design (est. 2018)	TBD	TBD	TBD
OU2-Project 3	700	\$18,000,000	\$25,714

The engineer's cost estimate included capital costs and optional items. The costs for the optional items represented approximately five percent of the total cost and are included in the figures presented in Table 5. The final engineer's estimate of construction cost included all work related to soil excavation, backfilling and property restoration and was calculated with an accuracy of within +30 and -20 percent.

If the actual cost per property for remediation is less than the \$25,714 used to determine the Cost Estimate in Section 18.A. of this Contract, remediation of additional properties will likely be possible under this Contract without the necessity of an amendment. As long as the actual cost of the remediation of OU2-Project 3 does not exceed the Estimated Cost in Section 18.A, and the number of properties cleaned up does not exceed 1,000, an amendment to this Contract will not be necessary.

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Appendix B

DESCRIPTION OF SITE

The Jacobsville Neighborhood Soil Contamination Site ("Site") (CERCLIS ID INN000508142) is located in Evansville, Indiana, Vanderburgh County. The Site consists of residential soils contaminated by lead and arsenic, and site name was derived from the fact that the contamination was initially found in the Jacobsville neighborhood. IDEM originally defined the Site as bounded on the west by Edgar Street, on the South by Lloyd Expressway, on the east by Heidelberg Street and on the North by Iowa Street. However, following the remedial investigation, EPA and the State concluded the Site encompassed a larger area than the original boundaries.

The Site is divided into two operable units. The first operable unit (OU1), which was the subject of the State Superfund Contract signed in June 2009 by EPA and the State, is roughly bounded by the Lloyd Expressway (State Highway 62) to the south, Mary Street to the west, Iowa Street to the north, and Elliot Street to the east (see Figure 1-2 attached to this Appendix). OU1 encompasses 141 acres and contains 508 residential properties.

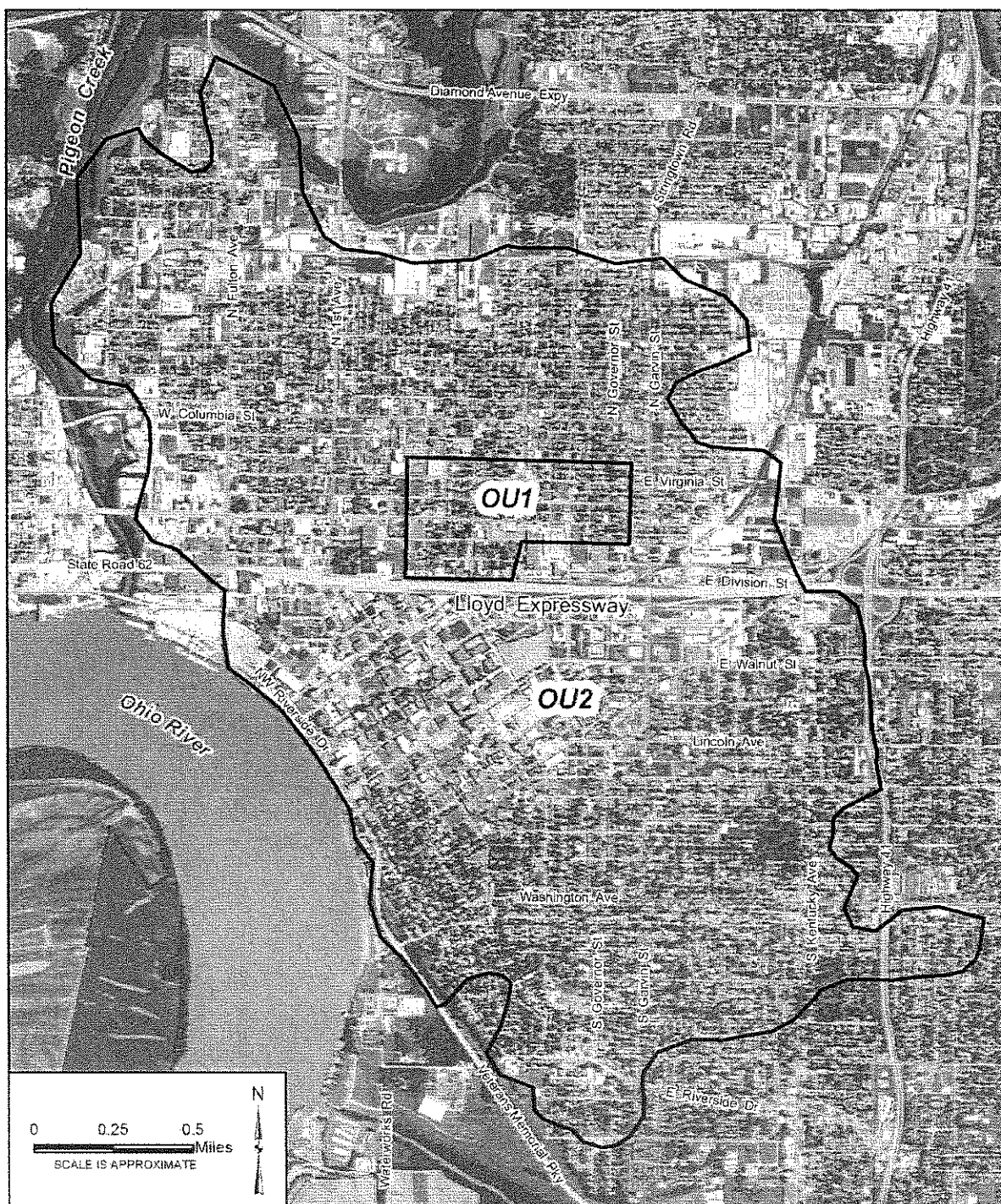
The second operable unit (OU2) extends outward from OU1 and covers approximately 4.5 square miles, approximately 2,952 acres, and over 10,000 residential and high-access properties (e.g., parks, schools, libraries, daycares). OU2 is roughly bounded by Morgan Street to the north, US 41 to the east, Pigeon Creek to the west, and Veterans Highway to the south (see Figure 2 attached to this Appendix.). Of the 10,000 residential and high-access properties within OU2, it is estimated that at least 4,000 will require remediation; however, this estimate may be adjusted as more data is collected.

For organizational purposes and to adequately manage the large number of properties in JNSC OU2 Site, OU2 will be divided into smaller "Projects." These Projects will be sampled in approximately 1,000 property groupings, which will result in JNSC OU2 being divided into 10 or more Projects. The number and size of the Projects will be at the discretion of IDEM and EPA and will depend on factors such as availability of federal and state funding, obtaining access agreements in a timely manner, completion of sampling and remedial design work, the pace at which remediation can be performed, and the need to optimize the ability to effectively manage and organize the cleanup project. Obtaining property access for sampling and cleanup, as well as the actual soil sampling, will be done as part of the design process, so these costs are not included in the cost estimate for remedial action. The sampling for each Project will be performed in multiple sampling events due to the large number of homes that need to be sampled and the unpredictable rate at which access is granted by property owners. Each sampling event will generate a separate remedial design document for the properties that exceed the cleanup goals and require remedial action; however, if several sampling events are conducted within a short time period, a single remedial design document may incorporate the designs for the sampling events. The remedial design documents will show the details for remediation and restoration of each property that exceeds the cleanup goals. Each remedial design document will be reviewed and approved by EPA and the State.

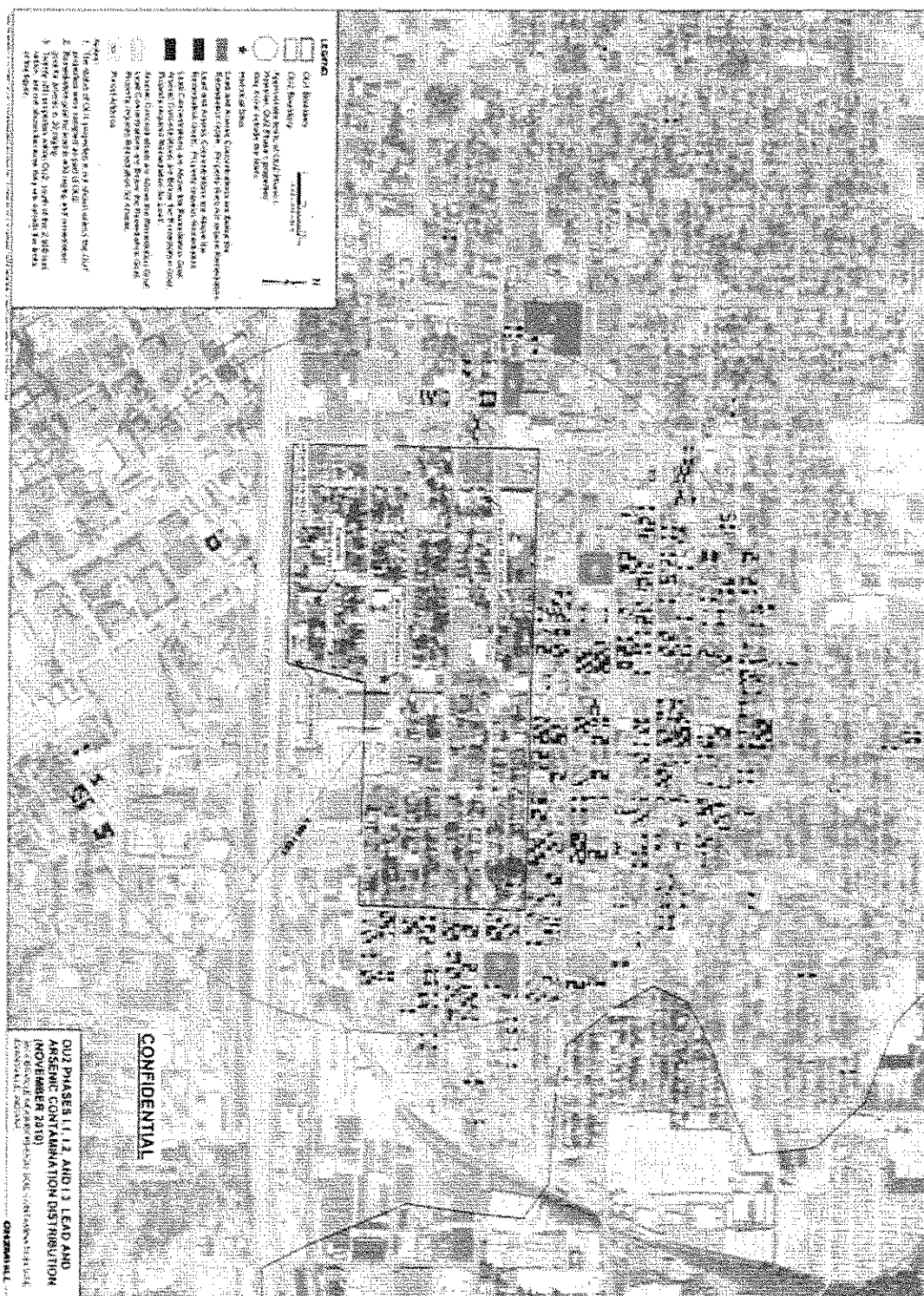
OU2-Project 1 is the first group of properties to be cleaned up given a funding limit of \$12,000,000. As OU2-Project 1 nears completion, approximately 678 [469 + 209] properties have been cleaned up within the \$12,000,000 cost cap. Under OU2-Project 2, 900 properties were cleaned up within the funding limit of \$15,000,000. The best estimate for the number of properties to be cleaned up in OU2-Project 3 is 700.

The number of properties remediated as part of OU2-Projects 1, 2 and 3 will depend on the average cost of cleanup per property. If the average cost differs from the estimate used to develop the total estimated cost in this SSC, the number of homes may be greater than or less than the estimate. The intent of this SSC is to remediate as many properties in OU2-Projects 1, 2 and 3 as possible, based on the funds (\$1,200,000, \$1,500,000, and \$1,800,000 respectively) that are being committed under this Contract.

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Second Amended Appendix C

PROJECTS' SCHEDULES AND DELIVERABLES

Because the remedial action at the Jacobsville site will consist of cleanups of numerous residential yards, many of the subactivities and subtasks that are part of the remedial action will be on-going throughout the cleanup. The timelines for major milestones planned for the OU2-Project 1, 2 and 3 remedial actions are listed below. If approximately 400 properties per year are cleaned up, based on the current estimate of 4,000 properties requiring remediation in OU2, the entire OU2 project will take 10 years to complete. For the estimated 470 properties that will be cleaned up as part of OU2-Project 1, it is estimated that remediation will take one to two years to complete. Similarly, for the estimated 450 properties that will be cleaned up as part of OU2-Project 2, it is estimated that remediation will take one to two years to complete.

<u>Tasks</u>	<u>Time Period</u>
Procurement of prime contractor	Within two months of signed SSC and receipt of necessary funding
Draft Remedial Action Work Plan	30 days after kick-off meeting
Final Remedial Action Work Plan	30 days after receipt of comments
Procurement of subcontractors	60 days after approval of Work Plan, unless an extended procurement process is approved by EPA
Progress Reports	Monthly (except during non-active months) by the 10 th of the month

<u>OU2-Project 1 Remediation Activities</u>	<u>2011-2017</u>
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- Site Access
- Pre-excavation documentation
- Site Mobilization
- Site Preparation/Clearing & Grubbing
- Soil Excavation
- Soil Remediation: Transportation & Disposal
- Fill Placement
- Topsoil/Gravel Placement
- Tree/Shrub Placement
- Property Restoration/Repairs
- Post-restoration Documentation
- Water and Fertilization
- Post Remediation Reports

Remedial Action Completion Report for Project 1	2015
Supplemental Remedial Action Completion Report for Project 1	2017

OU2-Project 2 Remediation Activities

2013-2015

Site Access
Pre-excavation documentation
Site Mobilization
Site Preparation/Clearing & Grubbing
Soil Excavation
Soil Remediation: Transportation & Disposal
Fill Placement
Topsoil/Gravel Placement
Tree /Shrub Placement
Property restoration/Repairs
Post-restoration Documentation
Water and Fertilization
Post Remediation Reports

Remedial Action Completion Report for Project 2

2016

OU2-Project 3 Remediation Activities

(2017-2018)

Site Access
Pre-excavation documentation
Site Mobilization
Site Preparation/Clearing & Grubbing
Soil Excavation
Soil Remediation: Transportation & Disposal
Fill Placement
Topsoil/Gravel Placement
Tree /Shrub Placement
Property restoration/Repairs
Post-restoration Documentation
Water and Fertilization
Post Remediation Reports

Remedial Action Completion Report for Project 3

(2019)

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